1-15. (Cancelled)

16. (New) A knee joint prosthesis for implantation in a knee joint that connects a femur and a tibia, the tibia having a tibial axis, comprising:

a tibial component comprising a tibial bearing surface;

a femoral component comprising a medial condyle, a lateral condyle and a cam having a cam surface, wherein the medial condyle and the lateral condyle are configured to act against the tibial bearing surface during flexing of the knee, and wherein the cam surface and the tibial bearing surface are configured to increase the surface area contact between the femoral component and the tibial component when the knee flexes to a flex angle greater than 120°.

17. (New) The knee joint prosthesis of claim 16, wherein the tibial component comprises an upper surface and a post extending from the upper surface in a direction extending generally away from the upper surface, the tibial bearing surface comprises a medial recess, a lateral recess and a post bearing surface located on the post, and wherein the cam of the femoral component is located between the medial condyle and the lateral condyle.

18. (New) The knee joint prosthesis of claim 17, wherein the medial condyle is configured to act against the medial recess and the lateral condyle is configured to act against the lateral recess during flexing of the knee, and the cam surface and the post bearing surface are configured to contact one another at a flex angle of about 90°.

19. (New) The knee joint prosthesis of claim 18, wherein the cam surface and the tibial bearing surface are configured such that the contact surface area between the cam surface and the tibial bearing surface is approximately constant from a flex angle of about 90° to a flex angle of at least about 120°.

20. (New) The knee joint prosthesis of claim 17, wherein the cam surface and the post bearing surface are configured to contact one another at least at flex angles greater than 120°,

the post bearing surface is configured to be convex when the post is viewed substantially along the tibial axis, and that portion of the cam surface that contacts the post bearing surface at flex angles greater than 120° is configured to be concave when viewed substantially along the tibial axis.

21. (New) The knee joint prosthesis of claim 20, wherein the cam surface and the post bearing surface are configured to contact one another from a flex angle of about 90° to a flex angle of at least 150°.

22. (New) The knee joint prosthesis of claim 20, wherein the ratio of the contact area between the post bearing surface and the cam surface when the flex angle is 150° to the contact area between the post bearing surface and the cam surface when the flex angle is about 90° is at least about 2.0.

23. (New) The knee joint prosthesis of claim 20, wherein the ratio of the contact area between the post bearing surface and the cam surface when the flex angle of 145° to the contact area between the post bearing surface and the cam surface when the flex angle is about 90° is at least about 1.3.

24. (New) The knee prosthesis of claim 20, wherein the area of contact between the post bearing surface and the cam surface when the flex angle is less than 120° is less than about 25 mm^2.

25. (New) The knee joint prosthesis of claim 17, wherein the medial condyle and the lateral condyle each have a posterior end, and the cam is located at or towards the posterior ends of the medial condyle and the lateral condyle.

26. (New) The knee joint prosthesis of claim 17, wherein the cam is connected to and extends between the medial condyle and the lateral condyle.

27. (New) The knee joint prosthesis of claim 17, wherein the cam has a generally bar-like shape.

28. (New) The knee joint prosthesis of claim 17, wherein the cam has a generally round cross-section when viewed along the length of the cam.

29. (New) The knee joint prosthesis of claim 28, wherein the round cross-section of the cam is configured to be interrupted in that region where the cam surface contacts the post bearing surface at flex angles greater than 120° so that, in the interrupted region, the cross-section is flattened or concave.

30. (New) The knee joint prosthesis of claim 28, wherein the cross-section of the cam is rounded at and towards its ends, and flattened or concave in a central region between the ends of the cam where the cam surface contacts the post bearing surface at flex angles greater than 120°.

31. (New) The knee joint prosthesis of claim 26, wherein the cam is formed integrally with a web that extends between the medial condyle and the lateral condyle, the web contacting the cam at a point where the cam does not contact the post during articulation of the joint.

32. (New) The knee joint prosthesis of claim 20, wherein when the maximum area of the cam surface that contacts the post bearing surface extends to a point that is not more than 1.5 mm from the ends of the cam where the cam joins the condyles.

33. (New) The knee joint prosthesis of claim 20, wherein the cam surface is configured so that its concavity is greater in the region where the cam surface acts against the post bearing surface when the flex angle is at least about 130° than in the region where the cam surface acts against the post at flex angles lower than about 130°.

34. (New) The knee joint prosthesis of claim 20, wherein the depth of the concave portion of the cam, measured relative to the surface of the cam at each side of the concave portion, is at least about 0.5 mm.

35. (New) The knee joint prosthesis of claim 20, wherein the depth of the concave portion of the cam, measured relative to the surface of the cam at each side of the concave portion, is not more than 1.2 mm.

36. (New) The knee joint prosthesis of claim 20, wherein the radius of curvature at the anterior edge of the concave portion is at least about 1.0 mm.

37. (New) The knee joint prosthesis of claim 20, wherein the radius of curvature at the anterior edge of the concave portion is not more than about 3.0 mm.

38. (New) The knee joint prosthesis of claim 20, wherein the radius of curvature at the anterior edge of the concave portion is not more than about 6.0 mm.

39. (New) The knee joint prosthesis of claim 20, wherein the radius of curvature at the anterior edge of the concave region is at least about 3.0 mm.

40. (New) A knee joint prosthesis for implantation in a knee joint that connects a femur and a tibia, the tibia having a tibial axis, comprising:

a tibial component comprising a tibial bearing surface;

a femoral component comprising a medial condyle, a lateral condyle and a cam having a cam surface, wherein the medial condyle and the lateral condyle are configured to contact the tibial bearing surface during flexing of the knee, and wherein the cam surface and the tibial bearing surface are configured such that the surface area contact between the cam surface and the tibial bearing surface increases when the knee is flexed to an angle greater than 120°.

41. (New) The knee joint prosthesis of claim 40, wherein the ratio of the contact area between the tibial bearing surface and the cam surface when the flex angle is 150° to the contact area between the tibial bearing surface and the cam surface when the flex angle is about 90° is at least about 2.0.

42. (New) The knee joint prosthesis of claim 40, wherein the ratio of the contact area between the tibial bearing surface and the cam surface when the flex angle of 145° to the contact area between the tibial bearing surface and the cam surface when the flex angle is about 90° is at least about 1.3.

43. (New) The knee joint prosthesis of claim 40, wherein the cam surface and the tibial bearing surface are configured such that the contact surface area between the cam surface and the tibial bearing surface is approximately constant from a flex angle of about 90° to a flex angle of at least about 120°.

44. (New) The knee joint prosthesis of claim 40, wherein the tibial component comprises an upper surface and a post extending from the upper surface in a direction extending generally away from the upper surface, the tibial bearing surface comprises a medial recess, a lateral recess and a post bearing surface located on the post, the cam surface and the post bearing surface are configured to contact one another at least at flex angles greater than 120°, the post bearing surface is configured to be convex when the post is viewed substantially along the tibial axis, and that portion of the cam surface that contacts the post bearing surface at flex angles greater than 120° is configured to be concave when viewed substantially along the tibial axis.

45. (New) The knee joint prosthesis of claim 44, wherein the cam surface and the post bearing surface are configured to contact one another from a flex angle of about 90° to a flex angle of at least 150°.

46. (New) The knee joint prosthesis of claim 40, wherein the tibial component comprises an upper surface and a post extending from the upper surface in a direction extending generally away from the upper surface, the tibial bearing surface comprises a medial recess, a lateral recess and a post bearing surface located on the post, and wherein the cam of the femoral component is located between the medial condyle and the lateral condyle.